

# Understanding By Design (UbD) Process

Baker College

This document contains the UbD process flowchart  
and documentation for each step of the process

**Baker College**  
**3/20/2012**

# Baker College Mission, Purposes, and Institutional Student Learning Outcomes

## Baker College Mission

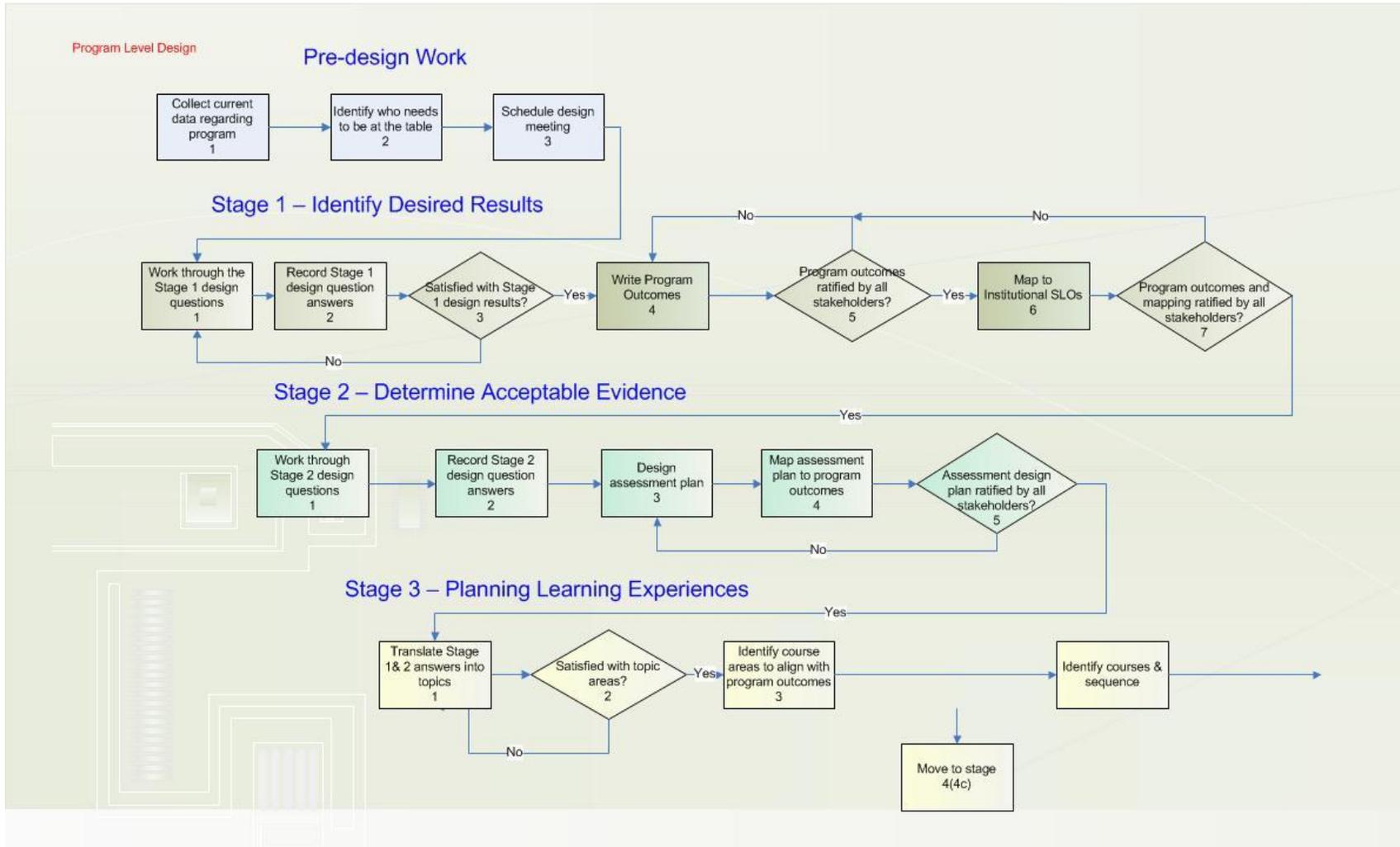
The mission of Baker College is to provide quality higher education and training which enable graduates to be successful throughout challenging and rewarding careers.

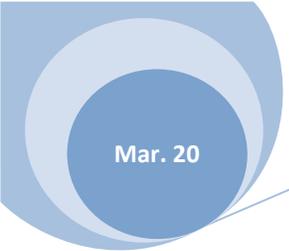
## Baker College Purposes

- Prepare students for competency in Business, Health, Human Services, and Technical careers in today's global economy.
- To provide general education which expands students' horizons, develops strong communications skills, and encourages critical thinking.
- To provide students with practical experience and training in a chosen field of study.
- To encourage social and classroom related activities which promote both personal and professional growth.
- To enhance students' success through continuous assessment and improvement of teaching, learning, and institutional effectiveness.
- To assist graduates throughout their careers in securing employment and improving career opportunities.
- To encourage graduates to continue their education and to lead effectively through service in a world without boundaries.
- To offer graduate programs which provide students with advanced study, research, scholarly activity, and the opportunities for professional development.

## Baker College Institutional Student Learning Outcomes

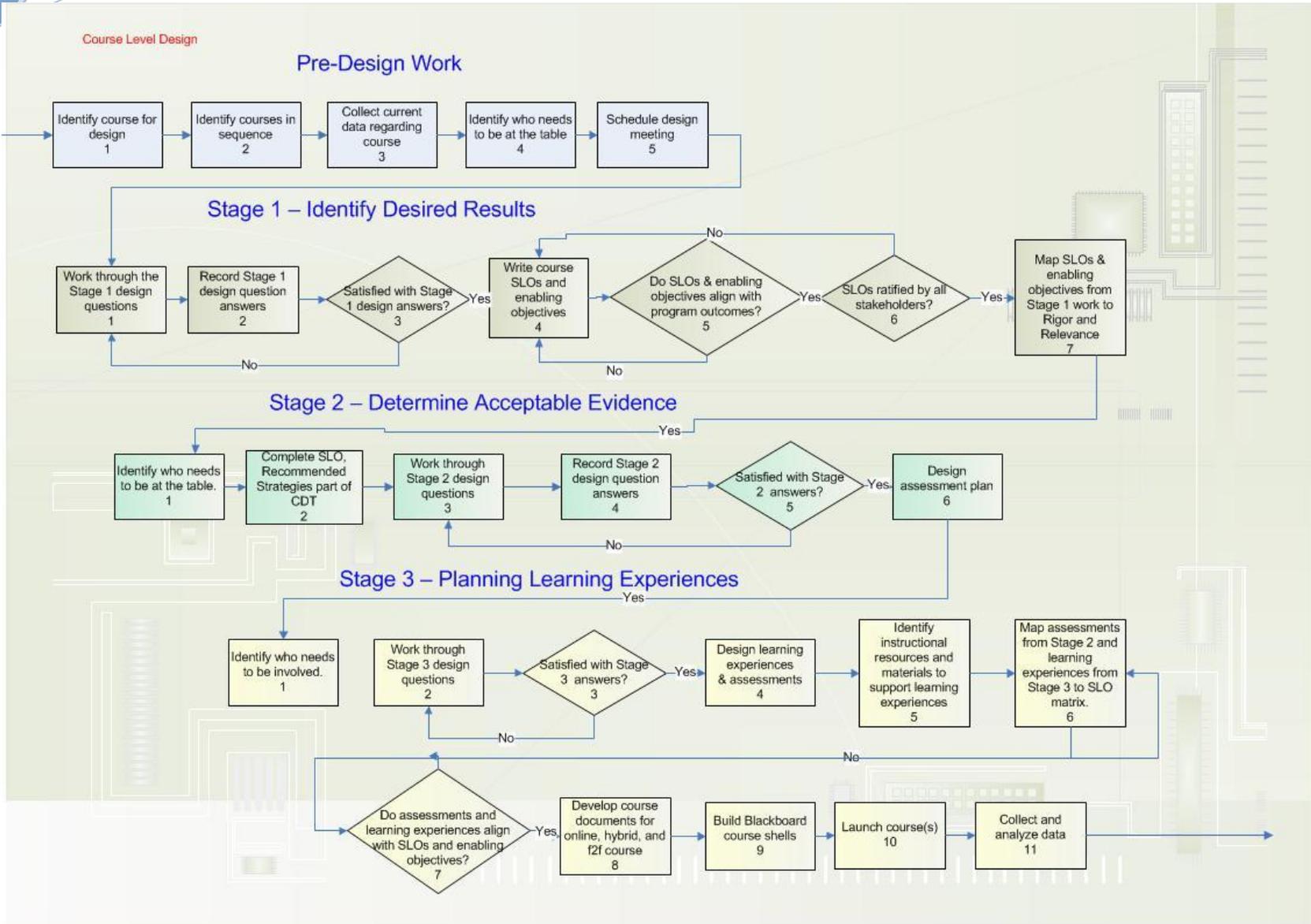
- Career ready knowledge and skills.
- Attitudes and behaviors that promote success in the workplace and effective social interaction with diverse people.
- Information literacy which includes recognizing the need for information and identifying, locating, evaluating, and effectively using that information.
- Effective communication in various academic and career settings using technology as appropriate.
- Critical thinking including analysis, synthesis, and problem solving which are applicable to the field of study, the workplace and other life situations.
- Broad-based knowledge, which includes an understanding of cultural, ethical, social, political, and global issues.





Mar. 20

## Understanding By Design (UbD) Process



## Program Level Design

### Pre-Design Work

#### Step 1

Collect current  
data regarding  
program  
1

Collect all current and pertinent data regarding the program. This should include but isn't limited to career data and data to support the need for the program or program revisions (student learning data). Include in this, information about the intended audience for the program and what level the program exists...certificate, associate, bachelor, masters, or doctorate. Use Baker Mission, Purposes, and Institutional Student Learning Outcomes (ISLOs).

#### Step 2

Identify who needs  
to be at the table  
2

Recommended to include the following:

- Faculty for subject matter expertise
- Dean Department Head
- Department Head
- Program Coordinator
- Instructional Designer (s)
- Career Services representative (people who know what students need for a career in this program area)
- Advisory Board member(s)
- System Director of Instructional Design
- Professionals from field
- Assessment experts

#### Step 3

Schedule design  
meeting  
3

Send information to those identified to be at the table. Inform them of the meeting time and place and provide current program data collected in Step 1.

## Program Level Design

### Stage One – Identify Desired Results

#### Step 1

Work through the  
Stage 1 design  
questions  
1

Use Baker College UbD Design Template (taken from pg. 31 UbD Workbook).

Use UbD design standards pg. 28.

Use Clarifying Content Priorities diagram pg. 71 of UbD and pg. 78 & 79 of UbD Workbook.

Use Identifying Essential Questions.

Ask the following Stage 1 Questions at the program level.

#### Goals

What are the long-term transfer goals? What relevant goals will this design address, including standards, certifications, and licensing requirements? In the end, students should be able, on their own, to...

#### Big Ideas

What are the Big Ideas? Big Ideas are defined as: (Wiggins & McTighe, 2006, Understanding by Design, pg. 69)

- Broad and abstract
- Represented by one or two words
- Universal in application
- Timeless-carry through the ages
- Represented by different examples that share common attributes

## Program Level Design

### Stage One – Identify Desired Results

#### Essential Questions

What are the essential questions to be continually explored? These are overarching questions.

The intent isn't to create more essential questions as students move forward in a program, but to create more depth with metacognition being the ultimate goal.

Essential questions do the following:

- Cause genuine and relevant inquiry into the big ideas and core content.
- Provoke deep thought, lively discussion, sustained inquiry, and new understanding as well as additional questions.
- Require students to consider alternatives, weigh evidence, support their ideas, and justify their answers.
- Stimulate vital, ongoing rethinking of big ideas, assumptions, and prior lessons.
- Spark meaningful connections with prior learning and personal experiences.
- Create opportunities for transfer to other situations and subjects.

#### Students will know...students will do...

Students will know...What key knowledge and skills will students acquire?

Students will be able to...What will students be able to do at the end of the program?

We use the information from these two questions to write program outcomes in Step 4 of process.

## Step 2

Record Stage 1  
design question  
answers  
2

Use the Baker College UbD Design Template to record Stage 2 design question answers.

## Program Level Design

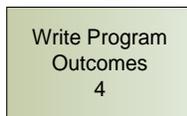
### Stage One – Identify Desired Results

#### Step 3 – Decision Point



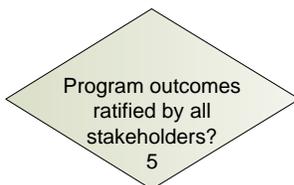
All parties must agree with the responses to the Stage 1 design questions before moving to the next step in the process. If there isn't agreement, move back to Step 1 of Stage 1 and repeat process.

#### Step 4



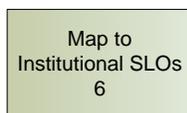
What will students know and be able to do at the end of the program? This comes from answers to Stage 1 questions. Write broad program outcomes at this level. These should all align with the Baker Mission, Purposes, and Institutional Student Learning Outcomes.

#### Step 5



All parties must approve the program outcomes. If there isn't agreement, move back to Step 4 of Stage 1 and re-work the program outcomes. If there is agreement, move ahead in the process.

#### Step 6



Map program outcomes to ISLOs. Make sure that program outcomes align with Baker Mission, Purposes, and ISLOs. Make adjustments as needed.

## Program Level Design

### Stage One – Identify Desired Results

#### Step 7 – Decision Point



All parties must agree with mapping to ISLOs before moving to the next step in the process. If there isn't agreement, move back to Step 4 of Stage 1 and re-work the program outcomes. If there is agreement, move ahead in the process.

## Program Level Design

### Stage Two – Determine Acceptable Evidence

#### Step 1

Work through  
Stage 2 design  
questions  
1

Use Baker College UbD Design Template.

Assessment experts are highly involved here.

Ask the following Stage 2 questions:

Assessments should not only measure student performance, but motivate. Assessments are authentic and require performance in real-world situations. Assessments should include longitudinal assessments for transfer and assessments that measure student success at the end of the program.

What performances are indicative of understanding, transfer of learning and understanding of big ideas? This is at the program level so these answers may include ability for students to get a job, to get promoted at their current job, to move into a career or to graduate level program. For programs that require certification, the performances may be related to preparation for passing the certification or obtaining a license. These should all align with the Baker Mission, Purposes, and Institutional Student Learning Outcomes.

#### Step 2

Record Stage 2  
design question  
answers  
2

Use the Baker College UbD Design Template.

#### Step 3

Design  
assessment plan  
3

Identify assessment indicators and criteria for success.

## Program Level Design

### Stage Two – Determine Acceptable Evidence

#### Step 4

Map assessment  
plan to program  
outcomes  
4

This will show how the assessment plan aligns to each of the program outcomes.

#### Step 5 – Decision Point

Assessment design  
plan ratified by all  
stakeholders?  
5

All parties must agree with answers to the Stage 2 questions before moving to the next step in the process. If there isn't agreement, move back to Step 1 of Stage 2. If there is agreement, move ahead to the next step.

## Program Level Design

### Stage Three – Planning Learning Experiences

#### Step 1

Translate Stage  
1 & 2 answers into  
topics  
1

Based on Stage 1 answers and Stage 2 assessments, what overarching areas (sometimes called topic areas) do we need to address in the program? (These can sometimes be identified through the big ideas brainstorming) This information will lead to the identification of courses, course SLOs and enabling objectives. Align these with program outcomes.

#### Step 2 – Decision Point



All parties must agree with answers to the topic areas before moving to the next step in the process. If there isn't agreement, move back to Step 1 of Stage 3. If there is agreement, move ahead to the next step.

#### Step 3

Identify courses to  
align with program  
outcomes  
3

Take the topics identified in the previous step and identify course areas that will cover these topics. SLOs for the courses are not created at this point as they must go through the Stage 1 at the course level.

#### Step 4

Identify courses &  
sequence

Identify new courses and/or existing courses. Sequence the courses in the order they will be taken in the program. This includes the identification of prerequisite courses. At this point it may be possible to determine the credit hours for the course, and, if needed, the number of hours of lecture versus lab time.

## Course Level Design

### Pre-Design Work

#### Step 1

Identify course for  
design  
1

#### Step 2

Identify courses in  
sequence  
2

This includes all prerequisite courses and the next courses in line.

#### Step 3

Collect current  
data regarding  
course  
3

Data can include career data from potential employers and Advisory Boards. If it is an existing course, collect data regarding student learning, data about the course itself such as credit hours and labs, program data, data from faculty who teach or have taught the course (best practices, what worked and didn't work). Collect information on standards that must be met for certifications, licensing, etc. Use program information from earlier in the process to identify intended audience.

#### Step 4

Identify who needs  
to be at the table  
4

Recommend the following individuals be at the table:

- Faculty for subject matter expertise
- Instructional Designer (s)

## Course Level Design

### Pre-Design Work

#### Step 5

Schedule design  
meeting  
5

Send information to those identified to be at the table. Inform them of the meeting time and place and provide current course and program data collected in Step 1.

# Course Level Design

## Stage One – Identify Desired Results

### Step 1

Work through the  
Stage 1 design  
questions  
1

Ask the following Stage 1 Questions at the course level.

#### Goals

What are the long-term transfer goals? In the end, students should be able, on their own, to...

Must establish clear goals and make sure they aren't assignments or activities. There is a 30% increase in achievement when students know and understand the learning goals. What will students know at the end of the course?

#### Big Ideas

What are the Big Ideas? Big Ideas are defined as: (Wiggins & McTighe, 2006, Understanding by Design, pg. 69)

- Broad and abstract
- Represented by one or two words
- Universal in application
- Timeless-carry through the ages
- Represented by different examples that share common attributes

#### Essential Questions

What are the essential questions to be continually explored? These are overarching questions. Essential questions are meant to: Be handed to the students and are in the students' language.

The intent isn't to create more essential questions as students move forward in a course, but to create more depth with metacognition being the ultimate goal.

Essential questions do the following:

- Cause genuine and relevant inquiry into the big ideas and core content.
- Provoke deep thought, lively discussion, sustained inquiry, and new understanding as well as more questions.

- Require students to consider alternatives, weigh evidence, support their ideas, and justify their answers.
  - Stimulate vital, ongoing rethinking of big ideas, assumptions, and prior lessons.
  - Spark meaningful connections with prior learning and personal experiences.
  - Create opportunities for transfer to other situations and subjects.

### Students will know...students will do...

Students will know...What key knowledge and skills will students acquire?

Students will be able to...What will students be able to do at the end of the course?

We use the information from these two questions to write student learning outcomes (SLOs) and enabling objectives (EOs) in Step 4 of process.

## Step 2

Record Stage 1  
design question  
answers  
2

Use the Baker College UbD Design Template.

## Step 3 - Decision Point



All parties must agree with the responses to the Stage 1 design questions before moving to the next step in the process. If there isn't agreement, move back to Step 1 of Stage 1 and repeat the process.

## Step 4

Write course  
SLOs and  
enabling  
objectives  
4

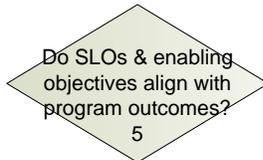
What will students know and be able to do at the end of the course? This comes from answers to Stage 1 questions. Use Bloom's Taxonomy action verbs. Write broad student learning outcomes at this level. Write specific enabling objectives for each SLO using Bloom's Taxonomy action verbs, conditions, and criterion to meet Quality Matters standards and guide students' understanding of

## Course Level Design

### Stage One – Identify Desired Results

What learning will take place? Get these into a rough format. Incorporate Quality Matters standards for outcomes and objectives. Discuss and determine experiential credit at this stage.

## Step 5 - Decision Point



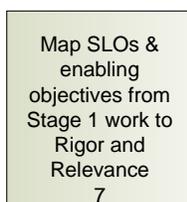
All parties must agree that the SLOs and EOs align with the program outcomes before moving to the next step in the process. Complete the mapping. If there isn't agreement, move back to Step 4 of Stage 1 and repeat the process. If everyone agrees, move to the next step in the process.

## Step 6



At this stage the content experts must approve the student learning outcomes and enabling objectives. Textbooks and other resources to support learning can be reviewed and obtained after the SLOs and EOs are approved. Resources must align to the SLOs and EOs.

## Step 7



In this step, map the SLOs and enabling objectives to Blooms Taxonomy and levels of authentic application using the Rigor and Relevance Framework. This will provide a map that we can use to align the SLOs and EOs to appropriate assessments, instructional strategies and learning activities based on research. The Rigor and Relevance Framework mapping tool is located in the Course Design Template (CDT).

## Course Level Design

### Stage Two – Determine Acceptable Evidence

Stage 2 can be done in a face-to-face meeting or done via e-mail, conference calls, or WebEx. For larger groups, a face-to-face meeting is best.

#### Step 1

Identify who needs to be at the table.  
1

Recommend the following individuals be at the table:

- Faculty for subject matter expertise
- Instructional Designer (s)
- Assessment experts

#### Step 2

Complete SLO, Recommended Strategies part of CDT  
2

Using the CDT, complete the SLO and EO Recommended Strategies section.

#### Step 3

Work through Stage 2 design questions  
3

Use the Baker College UbD Design Template.

Ask the following Stage 2 questions based on Rigor and Relevance mapping:

What are appropriate types of assessments for the quadrants where SLOs and EOs reside?  
Refer to SLO, Recommended Instructional Strategies and Assessments section of the CDT.

Discuss:

What criteria and indicators will be used to assess student work against the goals? Include self-assessments and reflections.

Incorporate Quality Matters standards for assessments.

Assessments must align to SLOs and enabling objectives from Stage 1.

## Course Level Design

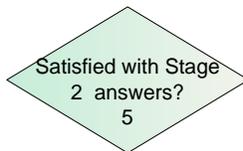
### Stage Two – Determine Acceptable Evidence

#### Step 4

Record Stage 2  
design question  
answers  
4

Use the Baker College UbD Design Template. This includes recording all Stage 2 assessments.

#### Step 5 – Decision Point



All parties must agree with the responses to the Stage 2 design questions before moving to the next step in the process. If there isn't agreement, move back to Step 2 of Stage 2 and repeat the process. If there is agreement, move on to the next step in the process.

#### Step 6

Design  
assessment plan  
6

Assessments should be formative, at points, throughout the course to assess student learning and progress toward student learning outcomes. Assessments should also be summative at the end of the course. Use the information from Step 2 to design detailed assessments. Add this information to the UbD Design template, and complete the Assessment Worksheet.

## Course Level Design

### Stage Three – Planning Learning Experiences

Stage 3 is generally not completed during a meeting. Content experts are contacted for input and to review the final CDT.

#### Step 1

Identify who needs  
to be involved.  
1

Recommend the following individuals be involved:

- Faculty for subject matter expertise
- Instructional Designer (s)

#### Step 2

Work through  
Stage 3 design  
questions  
2

Use the Baker College UbD Design Template. Use Quality Matters standards for engagement, instructional materials, and media.

Discuss the following Stage 3 questions:

- Plan for Un-coverage vs. Coverage
- What do students need to acquire in order to be successful? What enabling knowledge (facts, concepts, principles) and skills (processes, procedures, strategies) will students need in order to perform effectively and achieve desired results?
- What inquiries and meaning making must they actively engage in?
- What activities will equip students with the necessary knowledge and skills?
- What transfer must they practice and get feedback on?
- What will need to be taught and coached, and how should it best be taught, in light of stage 2?
- Use the Rigor and Relevance framework from Step 6 of Stage 1 for appropriate instructional strategies and learning experiences.
- What sequence is optimal for engagement and success?
- How will the work be differentiated without sacrificing SLOs? - This helps to optimize success of all.

## Course Level Design

### Stage Three – Planning Learning Experiences

#### Step 3 – Decision Point



All parties must agree with the responses to the Stage 3 design questions before moving to the next step in the process. If there isn't agreement, move back to Step 2 of Stage 3 and repeat the process. If there is agreement, move on to the next step in the process.

#### Step 4

Design learning experiences & assessments  
4

Use the Baker UbD Template.

- Align learning experiences to Quality Matters standards.
- Align learning experiences to Rigor and Relevance.
- Complete the design of any assessments from the Assessment Plan in Stage 2.

#### Step 5

Identify instructional resources and materials to support learning experiences  
5

Identify resources to introduce learning, resources to help students practice learning and get feedback, and resources to support assessments. Include media to support learning experiences and assessments.

#### Step 6

Map assessments from Stage 2 and learning experiences from Stage 3 to SLO matrix.  
6

Using the SLOs and EOs from Stage 1, complete the SLO matrix portion of the Course Design Template (CDT). Include SLOs, EOs, sequence, assessments, instructional strategies, learning experiences, and

## Course Level Design

### Stage Three – Planning Learning Experiences

#### Step 6 - continued

Map assessments from Stage 2 and learning experiences from Stage 3 to SLO matrix.  
6

media. Look for alignment of all assessments and learning experiences to the SLOs and EOs. This is where sequencing of the learning experiences takes place as the matrix is set-up on a weekly basis. See the SLO matrix from the Course Design Template, completed in Stage 2, Step 2.

#### Step 7 – Decision Point

Do assessments and learning experiences align with SLOs and enabling objectives?  
7

All parties (Instructional Designers & Subject Experts) review the SLO matrix from the CDT and agree on alignment of critical course elements, assessments, instructional strategies, learning experiences, and media to the SLOs and EOs. Subject matter experts review the completed SLO matrix and give feedback. All must agree there is alignment to SLOs and EOs before moving to the next step in the process. All stakeholders will approve.

#### Step 8

Develop course documents for online, hybrid, and f2f course  
8

These include documents such as the assignment summary, detailed course layout using the SLO matrix, learning plans, resources, instructional materials, assessment tools (rubrics), and media. Different documents are needed for online, hybrid and face-to-face courses. This information will come from the SLO matrix (CDT) and the Baker UbD Design Template.

## Course Level Design

### Stage Three – Planning Learning Experiences

#### Step 9

Build Blackboard  
course shells  
9

**All courses will have a master Blackboard course shell.**

Build the courses in Blackboard according to the template for the delivery mode – online, hybrid, or face-to-face. Use the Baker Course Design checklist and Quality Matters rubric to guide the course builds. Review completed courses against Quality Matters standards.

#### Step 10

Launch course(s)  
10

Preferably, this would be a small pilot, but our course model generally doesn't allow this.

#### Step 11

Collect and  
analyze data  
11

This should include the following data:

Level 1 (reaction) data from students regarding the course.

Level 1 (reaction) data from faculty regarding the course.

Level 2 (learning) assessment and evaluation data regarding student learning.

Level 3 (transfer) collect data on how students are using the knowledge and skills in their work or furthering their education.

Collect data on UbD process. Level 1 (reaction) data from all participants in the UbD process. Analyze the data to see what it tells us and use it to continually improve the UbD process.

#### Step 12

Revise course  
based on data, if  
necessary.  
12